

TestAmerica

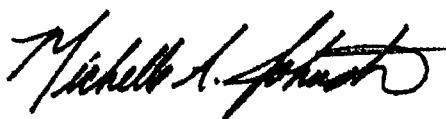
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-1118-2

Job Description: PFC Analysis

For:
Dalton Utilities
1200 V.D. Parrott Jr. Parkway
Dalton, GA 30721
Attention: Ms. Dena Haverland



Approved for release.
Michelle Johnston
Project Manager I
3/19/2010 11:55 AM

Michelle Johnston
Project Manager I
michelle.johnston@testamericainc.com
03/19/2010

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is E87667.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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CASE NARRATIVE
Client: Dalton Utilities
Project: PFC Analysis
Report Number: 280-1118-2

TestAmerica Denver utilizes USEPA approved methods in all analytical work. The samples presented in this report were analyzed for the parameters listed on the methods summary page in accordance with the methods indicated. Dilution factors and footnotes are provided on each datasheet to assist in the interpretation of the results.

The results relate only to the samples in this report and meet all requirements of NELAC. All data have been reviewed for compliance with the laboratory QA/QC plan and have found to be compliant with laboratory protocols with any exceptions noted below.

Please note that Non-Detect (ND) results have been evaluated down to the Method Detection Limit (MDL) and should be considered ND at the MDL. Unless otherwise noted, results for solids have been dry weight corrected.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Receipt

The following report contains the analytical results for two soil samples, two water samples and a trip blank received at TestAmerica Denver on March 6, 2010 according to documented sample acceptance procedures. The samples were received in good condition at a temperature of 3.8°C. No anomalies were encountered during sample receipt.

PFC

Samples TRIP BLANK (280-1118-5), FIELD BLANK (280-1118-6), EQUIPMENT BLANK (280-1118-7), 03042010 #1 (280-1118-8) and 03042010 #2 (280-1118-9) were analyzed for PFC in accordance with SOP DV-LC-0012. The samples were prepared on 03/08/2010 and 03/09/2010 and analyzed on 03/15/2010 and 03/16/2010.

Perfluorotetradecanoic acid (PFTeA) was detected in method blank MB 280-6574/9-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". If the associated samples reported results above the MDL and/or RL, the results have been "B" flagged.

Perfluoroundecanoic acid (PFUnA) failed the recovery criteria low for the MS of sample 280-1043-2 in batch 280-7082. Perfluoroctanoic acid (PFOA) failed the recovery criteria high for the MS and MSD of sample 280-1043-2 in batch 280-7082. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 280-6425 exceeded control limits for Perfluorotridecanoic acid (PFTriA). The recoveries are in control for this compound in both the LCS and LCSD. All associated samples are ND for this compound.

The method required MS/MSD analyses could not be performed on preparation batch 280-6425, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable LCS/LCSD data.

The closing Continuing Calibration Verification (CCV) standard associated with samples in analytical batch 280-6958 exhibited a %D value out of range, biased high, for Perfluoroctane Sulfonamide (FOSA). This is an indicator that data may be biased high. As no detectable concentrations of FOSA are present in the associated samples, corrective action is deemed unnecessary.

Refer to the QC report for details.

No other difficulties were encountered during the PFC analyses.

All other quality control parameters were within the acceptance limits.

FOSA

Samples TRIP BLANK (280-1118-5), FIELD BLANK (280-1118-6) and EQUIPMENT BLANK (280-1118-7) were analyzed for FOSA in accordance with SOP DV-LC-0012. The samples were prepared on 03/09/2010 and analyzed on 03/12/2010

The method required MS/MSD analyses could not be performed on preparation batch 280-6580, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable LCS/LCSD data.

No other difficulties were encountered during the FOSA analyses.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS

Samples 03042010 #1 (280-1118-8) and 03042010 #2 (280-1118-9) were analyzed for percent solids in accordance with ASTM D2974-87 Modified. The samples were analyzed on 03/08/2010.

No difficulties were encountered during the % solids analyses.

All quality control parameters were within the acceptance limits.



LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-1118-2

SDG No.:
 Instrument ID: LC LCMS3 Analysis Batch Number: 7082
 Lab Sample ID: STD200 280-7082/8 IC Client Sample ID:
 Date Analyzed: 03/12/10 03:10 Lab File ID: PC30C11B71.d GC Column: IonPac ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION
			ANALYST DATE
Perfluorobutanioc acid (PFBA)	2.17	Baseline	williamst 03/12/10 11:23
13C4 PFBA	2.36	Baseline	williamst 03/12/10 11:23
13C4 PFBA (IS)	2.36	Baseline	williamst 03/12/10 11:23

Lab Sample ID: ICV 280-7082/10 Client Sample ID:
 Date Analyzed: 03/12/10 03:40 Lab File ID: PC30C11B73.d GC Column: IonPac ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION
			ANALYST DATE
13C4 PFBA	2.23	Baseline	williamst 03/12/10 11:25

Lab Sample ID: MB 280-6574/9-A Client Sample ID:
 Date Analyzed: 03/12/10 10:12 Lab File ID: PC30C11B99.d GC Column: IonPac ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION
			ANALYST DATE
Perfluorohexane Sulfonate (PFHxS)	6.15	Assign Peak	williamst 03/15/10 09:30
Perfluoroctane Sulfonamide	9.25	Assign Peak	williamst 03/15/10 09:30

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-1118-2

SDG No.:
 Instrument ID: LC_LCMS3 Analysis Batch Number: 7347
 Lab Sample ID: 280-1118-8 Client Sample ID: 03042010 #1
 Date Analyzed: 03/15/10 13:42 Lab File ID: PC30C1509.d
 GC Column: IonPac ID: 2 (mm)

S. Oatman 3-17-10

COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION	
			ANALYST	DATE
Perfluorobutane Sulfonate (FBS)	4.18	Assign Peak	williamst	03/15/10 14:17
Perfluorohexane Sulfonate (PFHxS)	6.34	Assign Peak	williamst	03/15/10 14:17
Perfluorodecanoic acid (PFDA)	8.34	Assign Peak	williamst	03/15/10 14:17
Perfluorododecanoic acid (PFDoA)	9.19	Assign Peak	williamst	03/15/10 14:17
Perfluoroctane Sulfonamide	9.29	Assign Peak	williamst	03/15/10 14:17

Lab Sample ID: 280-1118-9 Client Sample ID: 03042010 #2
 Date Analyzed: 03/15/10 13:57 Lab File ID: PC30C1510.d
 GC Column: IonPac ID: 2 (mm)

COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION	
			ANALYST	DATE
Perfluorohexane Sulfonate (PFHxS)	6.32	Baseline	williamst	03/15/10 14:18
Perfluoroctane Sulfonate (PFOS)	7.74	Baseline	williamst	03/15/10 14:18
Perfluoroctane Sulfonamide	9.27	Baseline	williamst	03/15/10 14:18

LCMS MANUAL INTEGRATION SUMMARY

Lab Name:	TestAmerica Denver	Job No.:	280-1118-2
SDG No.:		Analysis Batch Number:	7440
Instrument ID:	LC_LCMS3	Client Sample ID:	<i>S. Chastagnier</i>
Lab Sample ID:	MB 280-6425/10-A	Lab File ID:	PC30C1608.d
Date Analyzed:	03/16/10 11:22	GC Column:	IonPac
		ID:	2 (mm)
COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION
Perfluorohexane Sulfonate (PFHxS)	6.22	Assign Peak	ANALYST DATE Williamst 03/16/10 14:46
Lab Sample ID:	280-1118-5	Client Sample ID:	TRIP BLANK
Date Analyzed:	03/16/10 13:08	Lab File ID:	PC30C1615.d
		GC Column:	IonPac
		ID:	2 (mm)
COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION
Perfluorohexane Sulfonate (PFHxS)	6.15	Assign Peak	ANALYST DATE Williamst 03/16/10 14:51
Lab Sample ID:	280-1118-6	Client Sample ID:	FIELD BLANK
Date Analyzed:	03/16/10 13:23	Lab File ID:	PC30C1616.d
		GC Column:	IonPac
		ID:	2 (mm)
COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION
Perfluorohexane Sulfonate (PFHxS)	6.13	Assign Peak	ANALYST DATE Williamst 03/16/10 14:52
Perfluoroctanoic acid (PFOA)	6.87	Baseline	ANALYST DATE Williamst 03/16/10 14:52
Lab Sample ID:	280-1118-7	Client Sample ID:	EQUIPMENT BLANK
Date Analyzed:	03/16/10 13:39	Lab File ID:	PC30C1617.d
		GC Column:	IonPac
		ID:	2 (mm)
COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION
Perfluorohexane Sulfonate (PFHxS)	6.10	Assign Peak	ANALYST DATE Williamst 03/16/10 14:53

LCMS MANUAL INTEGRATION SUMMARY

Lab Name:	TestAmerica Denver	Job No.:	280-1118-2
SDG No.:			
Instrument ID:	LC_LCMS3	Analysis Batch Number:	7082
Lab Sample ID:	STD200 280-7082/8 IC	Client Sample ID:	
Date Analyzed:	03/12/10 03:10	Lab File ID:	PC30C11B71.d
		GC Column:	IonPac
		ID:	2 (mm)
Compound Name	Retention Time	Reason	Manual Integration
Perfluorobutanioc acid (PFBA)	2.17	Baseline	
13C4 PFBA	2.36	Baseline	
13C4 PFBA (IS)	2.36	Baseline	
Lab Sample ID:	ICV 280-7082/10	Client Sample ID:	
Date Analyzed:	03/12/10 03:40	Lab File ID:	PC30C11B73.d
Compound Name	Retention Time	Reason	Manual Integration
13C4 PFBA	2.23	Baseline	
Lab Sample ID:	MB 280-6574/9-A	Client Sample ID:	
Date Analyzed:	03/12/10 10:12	Lab File ID:	PC30C11B99.d
Compound Name	Retention Time	Reason	Manual Integration
Perfluorohexane Sulfonate (PFHxS)	6.15	Assign Peak	
Perfluoroctane Sulfonamide	9.25	Assign Peak	

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver

Job No.: 280-1118-2

SDG No. :

Instrument ID: LC_LCMS3

Analysis Batch Number: 7347

Lab Sample ID: 280-1118-8

Client Sample ID: 03042010 #1

Date Analyzed: 03/15/10 13:42

Lab File ID: PC30C1509.d

COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION	
			DATE	ANALYST
Perfluorobutane Sulfonate (PFBS)	4.18	Assign Peak		williamst
Perfluorohexane Sulfonate (PFHxS)	6.34	Assign Peak		williamst
Perfluorodecanoic acid (PFDA)	8.34	Assign Peak		williamst
Perfluorododecanoic acid (PFDoA)	9.19	Assign Peak		williamst
Perfluoroctane Sulfonamide	9.29	Assign Peak		williamst

Lab Sample ID: 280-1118-9

Client Sample ID: 03042010 #2

Date Analyzed: 03/15/10 13:57

Lab File ID: PC30C1510.d

COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION	
			DATE	ANALYST
Perfluoroheptane Sulfonate (PFHxS)	6.32	Baseline		williamst
Perfluoroctane Sulfonate (PFOS)	7.74	Baseline		williamst
Perfluoroctane Sulfonamide	9.27	Baseline		williamst

LCMS MANUAL INTEGRATION SUMMARY

Lab Name:	TestAmerica Denver	Job No.:	280-1118-2
SDG No.:			
Instrument ID:	LC LCMS3	Analysis Batch Number:	7440
Lab Sample ID:	MB 280-6425/10-A	Client Sample ID:	
Date Analyzed:	03/16/10 11:22	Lab File ID:	PC30C1608.d
		GC Column:	IonPac
		ID:	2 (mm)
COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION
Perfluorohexane Sulfonate (PFHxS)	6.22	Assign Peak	ANALYST DATE williamst 03/16/10 14:46
Lab Sample ID:	280-1118-5	Client Sample ID:	TRIP BLANK
Date Analyzed:	03/16/10 13:08	Lab File ID:	PC30C1615.d
		GC Column:	IonPac
		ID:	2 (mm)
COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION
Perfluorohexane Sulfonate (PFHxS)	6.15	Assign Peak	ANALYST DATE williamst 03/16/10 14:51
Lab Sample ID:	280-1118-6	Client Sample ID:	FIELD BLANK
Date Analyzed:	03/16/10 13:23	Lab File ID:	PC30C1616.d
		GC Column:	IonPac
		ID:	2 (mm)
COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION
Perfluorohexane Sulfonate (PFHxS)	6.13	Assign Peak	ANALYST DATE williamst 03/16/10 14:52
Perfluoroctanoic acid (PFOA)	6.87	Baseline	ANALYST DATE williamst 03/16/10 14:52
Lab Sample ID:	280-1118-7	Client Sample ID:	EQUIPMENT BLANK
Date Analyzed:	03/16/10 13:39	Lab File ID:	PC30C1617.d
		GC Column:	IonPac
		ID:	2 (mm)
COMPOUND NAME	RETENTION TIME	REASON	MANUAL INTEGRATION
Perfluorohexane Sulfonate (PFHxS)	6.10	Assign Peak	ANALYST DATE williamst 03/16/10 14:53

SAMPLE SUMMARY

Client: Dalton Utilities

Job Number: 280-1118-2

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-1118-5TB	TRIP BLANK	Water	03/04/2010 0823	03/06/2010 0900
280-1118-6FB	FIELD BLANK	Water	03/04/2010 0835	03/06/2010 0900
280-1118-7EB	EQUIPMENT BLANK	Water	03/04/2010 0842	03/06/2010 0900
280-1118-8	03042010 #1	Solid	03/04/2010 0930	03/06/2010 0900
280-1118-9	03042010 #2	Solid	03/04/2010 1000	03/06/2010 0900

EXECUTIVE SUMMARY - Detections

Client: Dalton Utilities

Job Number: 280-1118-2

Lab Sample ID	Client Sample ID		Reporting Limit	Units	Method
Analyte		Result / Qualifier			
280-1118-8 03042010 #1					
Perfluorooctane Sulfonate (PFOS)	1.5	J	2.6	ug/Kg	DV-LC-0012
Perfluorotetradecanoic acid (PFTeA)	2.0	J B	6.5	ug/Kg	DV-LC-0012
Percent Moisture	24		0.10	%	D-2216
280-1118-9 03042010 #2					
Perfluorobutane Sulfonate	11		2.5	ug/Kg	DV-LC-0012
Perfluorobutanioc acid (PFBA)	2.1	J	2.5	ug/Kg	DV-LC-0012
Perfluorodecanoic acid (PFDA)	14		2.5	ug/Kg	DV-LC-0012
Perfluorododecanoic acid (PFDoA)	9.1		6.3	ug/Kg	DV-LC-0012
Perfluoroheptanoic acid (PFHpA)	2.1	J	2.5	ug/Kg	DV-LC-0012
Perfluorohexanoic acid (PFHxA)	2.3	J	2.5	ug/Kg	DV-LC-0012
Perfluorononanoic acid (PFNA)	1.8	J	2.5	ug/Kg	DV-LC-0012
Perfluorooctane Sulfonamide (FOSA)	1.7	J	6.3	ug/Kg	DV-LC-0012
Perfluorooctanoic acid (PFOA)	7.9		6.3	ug/Kg	DV-LC-0012
Perfluorooctane Sulfonate (PFOS)	27		2.5	ug/Kg	DV-LC-0012
Perfluoropentanoic acid (PFPA)	1.7	J	2.5	ug/Kg	DV-LC-0012
Perfluorotetradecanoic acid (PFTeA)	4.5	J B	6.3	ug/Kg	DV-LC-0012
Perfluorotridecanoic Acid (PFTriA)	5.2	J	6.3	ug/Kg	DV-LC-0012
Perfluoroundecanoic acid (PFUnA)	6.2	J	6.3	ug/Kg	DV-LC-0012
Percent Moisture	23		0.10	%	D-2216

METHOD SUMMARY

Client: Dalton Utilities

Job Number: 280-1118-2

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Perfluorinated Hydrocarbons Leaching procedure for PFCs	TAL DEN	TAL-DEN DV-LC-0012	
	TAL DEN		TAL-DEN PFC leach
ASTM D-2216	TAL DEN	ASTM D-2216	
Matrix: Water			
Perfluorinated Hydrocarbons Solid-Phase Extraction (SPE)	TAL DEN	TAL-DEN DV-LC-0012	
	TAL DEN		SW846 3535
FOSA in Water (LC/MS/MS) Solid-Phase Extraction (SPE)	TAL DEN	TAL-DEN PFC -FOSA	
	TAL DEN		SW846 3535

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-DEN = TestAmerica Laboratories, Denver, Facility Standard Operating Procedure.

METHOD / ANALYST SUMMARY

Client: Dalton Utilities

Job Number: 280-1118-2

Method	Analyst	Analyst ID
TAL-DEN DV-LC-0012	Williams, Teresa L	TLW
TAL-DEN PFC -FOSA	Williams, Teresa L	TLW
ASTM D-2216	Berry III, Paul B	PBB

Analytical Data

Client: Dalton Utilities

Job Number: 280-1118-2

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-1118-5TB

Date Sampled: 03/04/2010 0823

Client Matrix: Water

Date Received: 03/06/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method:	DV-LC-0012	Analysis Batch: 280-7440	Instrument ID:	LC_LCMS3
Preparation:	3535	Prep Batch: 280-6425	Lab File ID:	PC30C1615.d
Dilution:	1.0		Initial Weight/Volume:	250 mL
Date Analyzed:	03/16/2010 1308		Final Weight/Volume:	5000 uL
Date Prepared:	03/08/2010 1130		Injection Volume:	20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	ND		0.0082	0.020
Perfluorobutanioc acid (PFBA)	ND		0.0098	0.020
Perfluorodecanoic acid (PFDA)	ND		0.0078	0.020
Perfluorododecanoic acid (PFDoA)	ND		0.015	0.030
Perfluoroheptanoic acid (PFHpA)	ND		0.013	0.030
Perfluorohexane Sulfonate (PFHxS)	ND		0.0070	0.030
Perfluorohexanoic acid (PFHxA)	ND		0.0029	0.020
Perfluorononanoic acid (PFNA)	ND		0.017	0.040
Perfluooctanoic acid (PFOA)	ND		0.0098	0.020
Perfluorooctane Sulfonate (PFOS)	ND		0.013	0.030
Perfluoropentanoic acid (PFPA)	ND		0.011	0.030
Perfluorotetradecanoic acid (PFTeA)	ND		0.015	0.030
Perfluorotridecanoic Acid (PFTriA)	ND	*	0.018	0.040
Perfluoroundecanoic acid (PFUnA)	ND		0.0069	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	126		60 - 155
13C4 PFOS	86		45 - 130
13C4 PFBA	112		36 - 130
13C2 PFHxA	100		55 - 135
13C5 PFNA	107		54 - 132
13C2 PFDA	96		53 - 130
13C2 PFUnA	77		37 - 130
13C2 PFDoA	52		26 - 130
18O2 PFHxS	102		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-1118-2

Client Sample ID: FIELD BLANK

Lab Sample ID: 280-1118-6FB

Date Sampled: 03/04/2010 0835

Client Matrix: Water

Date Received: 03/06/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method:	DV-LC-0012	Analysis Batch:	280-7440	Instrument ID:	LC_LCMS3
Preparation:	3535	Prep Batch:	280-6425	Lab File ID:	PC30C1616.d
Dilution:	1.0			Initial Weight/Volume:	253 mL
Date Analyzed:	03/16/2010 1323			Final Weight/Volume:	5000 uL
Date Prepared:	03/08/2010 1130			Injection Volume:	20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	ND		0.0081	0.020
Perfluorobutanoic acid (PFBA)	ND		0.0097	0.020
Perfluorodecanoic acid (PFDA)	ND		0.0077	0.020
Perfluorododecanoic acid (PFDoA)	ND		0.015	0.030
Perfluoroheptanoic acid (PFHpA)	ND		0.013	0.030
Perfluorohexane Sulfonate (PFHxS)	ND		0.0069	0.030
Perfluorohexanoic acid (PFHxA)	ND		0.0029	0.020
Perfluorononanoic acid (PFNA)	ND		0.017	0.040
Perfluoroctanoic acid (PFOA)	ND		0.0097	0.020
Perfluoroctane Sulfonate (PFOS)	ND		0.013	0.030
Perfluoropentanoic acid (PFPA)	ND		0.011	0.030
Perfluorotetradecanoic acid (PFTeA)	ND		0.014	0.030
Perfluorotridecanoic Acid (PFTriA)	ND	*	0.018	0.040
Perfluoroundecanoic acid (PFUnA)	ND		0.0068	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	130		60 - 155
13C4 PFOS	88		45 - 130
13C4 PFBA	122		36 - 130
13C2 PFHxA	110		55 - 135
13C5 PFNA	111		54 - 132
13C2 PFDA	107		53 - 130
13C2 PFUnA	85		37 - 130
13C2 PFDoA	57		26 - 130
18O2 PFHxS	113		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-1118-2

Client Sample ID: EQUIPMENT BLANK

Lab Sample ID: 280-1118-7EB

Date Sampled: 03/04/2010 0842

Client Matrix: Water

Date Received: 03/06/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method:	DV-LC-0012	Analysis Batch: 280-7440	Instrument ID:	LC_LCMS3
Preparation:	3535	Prep Batch: 280-6425	Lab File ID:	PC30C1617.d
Dilution:	1.0		Initial Weight/Volume:	250 mL
Date Analyzed:	03/16/2010 1339		Final Weight/Volume:	5000 uL
Date Prepared:	03/08/2010 1130		Injection Volume:	20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorobutane Sulfonate (PFBS)	ND		0.0082	0.020
Perfluorobutanoic acid (PFBA)	ND		0.0098	0.020
Perfluorodecanoic acid (PFDA)	ND		0.0078	0.020
Perfluorododecanoic acid (PFDa)	ND		0.015	0.030
Perfluoroheptanoic acid (PFHpA)	ND		0.013	0.030
Perfluorohexane Sulfonate (PFHxS)	ND		0.0070	0.030
Perfluorohexanoic acid (PFHxA)	ND		0.0029	0.020
Perfluorononanoic acid (PFNA)	ND		0.017	0.040
Perfluoroctanoic acid (PFOA)	ND		0.0098	0.020
Perfluoroctane Sulfonate (PFOS)	ND		0.013	0.030
Perfluoropentanoic acid (PFPA)	ND		0.011	0.030
Perfluorotetradecanoic acid (PFTeA)	ND		0.015	0.030
Perfluorotridecanoic Acid (PFTriA)	ND	*	0.018	0.040
Perfluoroundecanoic acid (PFUnA)	ND		0.0069	0.020

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	127		60 - 155
13C4 PFOS	90		45 - 130
13C4 PFBA	118		36 - 130
13C2 PFHxA	105		55 - 135
13C5 PFNA	114		54 - 132
13C2 PFDA	100		53 - 130
13C2 PFUnA	73		37 - 130
13C2 PFDa	50		26 - 130
18O2 PFHxS	109		61 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-1118-2

Client Sample ID: 03042010 #1

Lab Sample ID: 280-1118-8

Client Matrix: Solid

% Moisture: 24.3

Date Sampled: 03/04/2010 0930

Date Received: 03/06/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method:	DV-LC-0012	Analysis Batch:	280-7347	Instrument ID:	LC_LCMS3
Preparation:	PFC leach	Prep Batch:	280-6574	Lab File ID:	PC30C1509.d
Dilution:	1.0			Initial Weight/Volume:	10.14 g
Date Analyzed:	03/15/2010 1342			Final Weight/Volume:	50 mL
Date Prepared:	03/09/2010 0812			Injection Volume:	20 uL

Analyte	Dry Wt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Perfluorobutane Sulfonate		ND		1.1	2.6
Perfluorobutanoic acid (PFBA)		ND		0.44	2.6
Perfluorodecanoic acid (PFDA)		ND		0.98	2.6
Perfluorododecanoic acid (PFDoA)		ND		1.1	6.5
Perfluoroheptanoic acid (PFHpA)		ND		0.94	2.6
Perfluorohexane Sulfonate (PFHxS)		ND		1.0	2.6
Perfluorohexanoic acid (PFHxA)		ND		0.26	2.6
Perfluorononanoic acid (PFNA)		ND		0.65	2.6
Perfluorooctane Sulfonamide (FOSA)		ND		1.6	6.5
Perfluorooctanoic acid (PFOA)		ND		1.3	6.5
Perfluorooctane Sulfonate (PFOS)		1.5	J	0.49	2.6
Perfluoropentanoic acid (PFPA)		ND		1.1	2.6
Perfluorotetradecanoic acid (PFTeA)		2.0	J B	1.9	6.5
Perfluorotridecanoic Acid (PFTriA)		ND		1.5	6.5
Perfluoroundecanoic acid (PFUnA)		ND		2.4	6.5

Surrogate	% Rec	Qualifier	Acceptance Limits
13C4 PFOA	102		50 - 200
13C4 PFOS	98		50 - 200
13C4 PFBA	91		50 - 200
13C2 PFHxA	90		50 - 200
13C5 PFNA	100		50 - 200
13C2 PFDA	103		50 - 200
13C2 PFUnA	102		50 - 200
13C2 PFDoA	93		50 - 200
18O2 PFHxS	91		50 - 200

Analytical Data

Client: Dalton Utilities

Job Number: 280-1118-2

Client Sample ID: 03042010 #2

Lab Sample ID: 280-1118-9

Client Matrix: Solid

% Moisture: 22.5

Date Sampled: 03/04/2010 1000

Date Received: 03/06/2010 0900

DV-LC-0012 Perfluorinated Hydrocarbons

Method:	DV-LC-0012	Analysis Batch: 280-7347	Instrument ID:	LC_LCMS3
Preparation:	PFC leach	Prep Batch: 280-6574	Lab File ID:	PC30C1510.d
Dilution:	1.0		Initial Weight/Volume:	10.17 g
Date Analyzed:	03/15/2010 1357		Final Weight/Volume:	50 mL
Date Prepared:	03/09/2010 0812		Injection Volume:	20 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Perfluorobutane Sulfonate		11		1.1	2.5
Perfluorobutanoic acid (PFBA)		2.1	J	0.43	2.5
Perfluorodecanoic acid (PFDA)		14		0.96	2.5
Perfluorododecanoic acid (PFDa)		9.1		1.0	6.3
Perfluoroheptanoic acid (PFHpA)		2.1	J	0.92	2.5
Perfluorohexane Sulfonate (PFHxS)		ND		0.98	2.5
Perfluorohexanoic acid (PFHxA)		2.3	J	0.26	2.5
Perfluorononanoic acid (PFNA)		1.8	J	0.63	2.5
Perfluooctane Sulfonamide (FOSA)		1.7	J	1.6	6.3
Perfluooctanoic acid (PFOA)		7.9		1.3	6.3
Perfluooctane Sulfonate (PFOS)		27		0.48	2.5
Perfluoropentanoic acid (PFPA)		1.7	J	1.1	2.5
Perfluorotetradecanoic acid (PFTeA)		4.5	J B	1.8	6.3
Perfluorotridecanoic Acid (PFTriA)		5.2	J	1.5	6.3
Perfluoroundecanoic acid (PFUnA)		6.2	J	2.3	6.3

Surrogate	%Rec	Qualifier	Acceptance Limits
13C4 PFOA	103		50 - 200
13C4 PFOS	97		50 - 200
13C4 PFBA	88		50 - 200
13C2 PFHxA	92		50 - 200
13C5 PFNA	98		50 - 200
13C2 PFDA	103		50 - 200
13C2 PFUnA	103		50 - 200
13C2 PFDa	94		50 - 200
18O2 PFHxS	91		50 - 200

Analytical Data

Client: Dalton Utilities

Job Number: 280-1118-2

Client Sample ID: TRIP BLANK

Lab Sample ID: 280-1118-5TB

Date Sampled: 03/04/2010 0823

Client Matrix: Water

Date Received: 03/06/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method:	PFC -FOSA	Analysis Batch:	280-6958	Instrument ID:	LC_LCMS3
Preparation:	3535	Prep Batch:	280-6580	Lab File ID:	PC30C11B140.d
Dilution:	1.0			Initial Weight/Volume:	251 mL
Date Analyzed:	03/12/2010 1720			Final Weight/Volume:	5 mL
Date Prepared:	03/09/2010 1010			Injection Volume:	20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide	ND		0.0057	0.050

Surrogate	%Rec	Qualifier	Acceptance Limits
MeFOSA (Sur)	56		37 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-1118-2

Client Sample ID: FIELD BLANK

Lab Sample ID: 280-1118-6FB

Date Sampled: 03/04/2010 0835

Client Matrix: Water

Date Received: 03/06/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method:	PFC -FOSA	Analysis Batch: 280-6958	Instrument ID:	LC_LCMS3
Preparation:	3535	Prep Batch: 280-6580	Lab File ID:	PC30C11B141.d
Dilution:	1.0		Initial Weight/Volume:	251 mL
Date Analyzed:	03/12/2010 1725		Final Weight/Volume:	5 mL
Date Prepared:	03/09/2010 1010		Injection Volume:	20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide	ND		0.0057	0.050
Surrogate	%Rec	Qualifier	Acceptance Limits	
MeFOSA (Sur)	53		37 - 130	

Analytical Data

Client: Dalton Utilities

Job Number: 280-1118-2

Client Sample ID: EQUIPMENT BLANK

Lab Sample ID: 280-1118-7EB

Date Sampled: 03/04/2010 0842

Client Matrix: Water

Date Received: 03/06/2010 0900

PFC -FOSA FOSA in Water (LC/MS/MS)

Method:	PFC -FOSA	Analysis Batch: 280-6958	Instrument ID:	LC_LCMS3
Preparation:	3535	Prep Batch: 280-6580	Lab File ID:	PC30C11B142.d
Dilution:	1.0		Initial Weight/Volume:	251 mL
Date Analyzed:	03/12/2010 1730		Final Weight/Volume:	5 mL
Date Prepared:	03/09/2010 1010		Injection Volume:	20 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluorooctane Sulfonamide	ND		0.0057	0.050

Surrogate	%Rec	Qualifier	Acceptance Limits
MeFOSA (Sum)	51		37 - 130

Analytical Data

Client: Dalton Utilities

Job Number: 280-1118-2

General Chemistry**Client Sample ID:** 03042010 #1

Lab Sample ID: 280-1118-8

Date Sampled: 03/04/2010 0930

Client Matrix: Solid

Date Received: 03/06/2010 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	24		%	0.10	0.10	1.0	D-2216

Analysis Batch: 280-6450

Date Analyzed: 03/08/2010 1009

DryWt Corrected: N

Analytical Data

Client: Dalton Utilities

Job Number: 280-1118-2

General Chemistry**Client Sample ID:** 03042010 #2

Lab Sample ID: 280-1118-9

Client Matrix: Solid

Date Sampled: 03/04/2010 1000

Date Received: 03/06/2010 0900

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	23	%		0.10	0.10	1.0	D-2216

Analysis Batch: 280-6450 Date Analyzed: 03/08/2010 1009 DryWt Corrected: N